IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (Previously Presented) An image processing apparatus for receiving and decoding a code sequence obtained by encoding an image, comprising:

decoding means for entropy-decoding the input code sequence to obtain quantization indices;

correction value selection means for selecting correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoding means;

dequantizing means for correcting the quantization indices using the correction values selected by said correction value selection means, in accordance with values of the quantization indices and generating a series of coefficient sequences by computing products of the corrected quantization indices and a quantization step; and

inverse transforming means for restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained by said dequantizing means.

2. (Original) The apparatus according to claim 1, wherein said inverse transforming means executes an inverse discrete wavelet transformation.

3. (Canceled)

4. (Original) The apparatus according to claim 1, wherein said correction value selection means selects a constant correction value for dequantization of coefficients which belong to a lowest frequency band of coefficient groups which belong to a plurality of frequency bands and undergo inverse transformation by said inverse transforming means.

5. (Original) The apparatus according to claim 1, wherein said correction value selection means selects the correction values on the basis of information that pertains to neighboring regions of a quantization index to be dequantized.

6. (Original) The apparatus according to claim 5, wherein the information includes values of quantization indices of the neighboring regions.

7. (Previously Presented) An image processing apparatus for receiving and decoding a code sequence obtained by encoding an image, comprising:

decoding means for entropy-decoding the input code sequence to obtain quantization indices;

correction value selection means for selecting correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoding means, on the basis of information that pertains to neighboring regions of a quantization index to be dequantized, and on the basis of whether or not the number of zero quantization indices is not less than a predetermined value;

dequantizing means for generating a series of coefficient sequences representing an image by dequantizing the quantization indices which are decoded by said decoding means and are corrected in accordance with the correction values; and

inverse transforming means for restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained by said dequantizing means.

8. (Original) The apparatus according to claim 1, wherein the input code sequence is a code sequence obtained by breaking up coefficients that have undergone discrete wavelet transformation into bit planes, and encoding the bit planes.

9. (Original) The apparatus according to claim 8, wherein said correction value selection means selects the correction value in accordance with a value of the bit plane of the code sequence.

10. (Currently Amended) The apparatus according to claim 1, wherein said correction value selection means selects the correction value in accordance with a ~~value of a flag indicating an image type~~ additional information for specifying the correction value included in the code sequence.

11. (Previously Presented) An image processing method for receiving and decoding a code sequence obtained by encoding an image, comprising:

a decoding step, of entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection step, of selecting correction values among a plurality of correction values, used to correct the quantization indices obtained in said decoding step;

a dequantization step, of correcting the quantization indices using the correction values selected in said correction value selection step, in accordance with values of the quantization indices and generating a series of coefficient sequences by computing products of the corrected quantization indices and a quantization step; and

an inverse transforming step, of restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained in said dequantizing step.

12. (Original) The method according to claim 11, wherein said inverse transform step includes a step of executing inverse discrete wavelet transformation.

13. (Canceled)

14. (Currently Amended) The method according to claim 11, wherein said correction value selection step includes the step of selecting a constant correction value for dequantization of coefficients which belong to a lowest frequency band of coefficient groups which belong to a plurality of frequency bands and undergo inverse transformation in ~~the~~ said inverse transform step.

15. (Previously Presented) The method according to claim 11, wherein said correction value selection step includes the step of selecting the correction values on

the basis of information that pertains to neighboring regions of a quantization index to be dequantized.

16. (Original) The method according to claim 15, wherein the information includes values of quantization indices of the neighboring regions.

17. (Previously Presented) An image processing method for receiving and decoding a code sequence obtained by encoding an image, comprising:

a decoding step, of entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection step, of selecting correction values among a plurality of correction values, used to correct the quantization indices obtained in said decoding step, on the basis of information that pertains to neighboring regions of a quantization index to be dequantized, and on the basis of whether or not the number of zero quantization indices is not less than a predetermined value;

a dequantization step, of generating a series of coefficient sequences representing an image by dequantizing the quantization indices which are decoded in said decoding step and are corrected in accordance with the correction values; and

an inverse transforming step, of restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained in said dequantizing step.

18. (Original) The method according to claim 11, wherein the input code sequence is a code sequence obtained by breaking up coefficients that have undergone discrete wavelet transformation into bit planes, and encoding the bit planes.

19. (Previously Presented) The method according to claim 18, wherein said correction value selection step includes the step of selecting the correction value in accordance with a value of the bit plane of the code sequence.

20. (Currently Amended) The method according to claim 11, wherein said correction value selection step includes the step of selecting the correction value in accordance with ~~a value of a flag indicating an image type~~ additional information for specifying the correction value included in the code sequence.

21. (Previously Presented) A computer readable storage medium that stores a program for executing an image processing method for receiving and decoding a code sequence obtained by encoding an image, comprising:

a decoding step module, for entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection step module, for selecting correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoding step module;

a dequantization step module, for correcting the quantization indices using the correction values selected in said correction value selection step, in accordance

with values of the quantization indices and generating a series of coefficient sequences by computing products of the corrected quantization indices and a quantization step; and

an inverse transforming step module, of restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained in said dequantizing step module.

22. (Original) The medium according to claim 21, wherein said inverse transform step module executes inverse discrete wavelet transformation.

23. (Canceled)

24. (Original) The medium according to claim 21, wherein said correction value selection step module selects a constant correction value for dequantization of coefficients which belong to a lowest frequency band of coefficient groups which belong to a plurality of frequency bands and undergo inverse transformation in said inverse transform step module.

25. (Original) The medium according to claim 21, wherein said correction value selection step module selects the correction values on the basis of information that pertains to neighboring regions of a quantization index to be dequantized.

26. (Original) The medium according to claim 25, wherein the information includes values of quantization indices of the neighboring regions.

27. (Previously Presented) A computer readable storage medium that stores a program for executing an image processing method for receiving and decoding a code sequence obtained by encoding an image, comprising:

a decoding step module, for entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection step module, for selecting correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoding step module, on the basis of information that pertains to neighboring regions of a quantization index to be dequantized, and on the basis of whether or not the number of zero quantization indices is not less than a predetermined value;

a dequantization step module, for generating a series of coefficient sequences representing an image by dequantizing the quantization indices which are decoded by said decoding step module and are corrected in accordance with the correction values; and

an inverse transforming step module, of restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained in said dequantizing step module.

28. (Previously Presented) An image processing apparatus for receiving and decoding a code sequence obtained by encoding an image, comprising:

a decoder, provided to entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection unit, provided to select correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoder;

a dequantizer, provided to correct the quantization indices using the correction values selected by said correction value selection unit, in accordance with values of the quantization indices and generate a series of coefficient sequences by computing products of the corrected quantization indices and a quantization step; and

inverse transforming unit, provided to restore an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained by said dequantizer.